

REPORT NO

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SUPPLEMENT TO  
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THIS IS UNEVALUATED INFORMATION

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1. When an aircraft was prepared for short-term storage, no equipment, except the battery, was removed. Protective KV-type grease was used against corrosion on the unpainted sections and junctions of the aircraft. Prior to application, MS-type grease was mixed with oil. All rubber parts on the aircraft, including the tires were covered with talcum powder. The exhaust stack outlets were covered with metal cups after the interior had been sprayed with oil. The engine section and the canopy were covered with a tarpaulin. The tires also were covered with canvas, after they were raised on wooden boards and the movable surfaces secured with wooden blocks.
2. All engines which used 100 or 100 octane gasoline were drained of fuel and refilled with 72 octane gasoline. The engine was run for five minutes at 1600 RPM and the oil replaced with fresh oil of the same type. After the oil was changed the engine was again run for about three minutes. The next step was the removal of the spark plugs, after which the interior of each cylinder was sprayed with 150 grams of MS-type oil. The spark plugs then were replaced and the propeller rotated five or six times. The spark plugs were removed a second time and the interior of each cylinder again sprayed with 150 grams of oil. The engine blower was moved to the second position in order to relieve tension on the blower's springs. In addition, the engines were pickled with MS-type oil by means of the crank case drain. A hand pump which contains 40 liters of oil was used for this purpose. The engine of the aircraft was entirely stationary during this process. After the engine was pickled, the cooling liquid was drained. The propeller of the aircraft was rotated once a week while it was in storage and the tires were removed once a month.
3. Every 30 days the storage procedure described above was repeated. At that time, the engine cover, the exhaust stack covers and the spark plugs were removed. The plugs were replaced after they had been cleaned with gasoline. Cooling fluid was added, the battery installed and the engine started. After the engine had run for 10 to 15 minutes the pickling procedure was repeated.
4. An aircraft was flown for about 10 to 15 minutes about every 90 days. After this flight it was returned to storage if the performance was satisfactory. [ ] an aircraft was not kept in storage over four months. Two individuals were able to complete the preparations for storage of an aircraft in about six to eight hours and withdraw an aircraft from storage in about the same period of time.

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5. The Hungarian Air Force normally used 95, 87 and 72 octane gasoline. The 95 octane gasoline was light red and had an almond odor. The 87 octane gasoline was both light red and blue, also with a almond odor. The 72 octane gasoline was not colored and only had a faint almond odor. I don't know the dyes which were used for color coding. In order to obtain a higher octane rating, one liter of American Ethyl Fluid or two liters of Soviet fluid was added to 100 liters of ordinary gasoline. The gasoline used in the various types of aircraft engines had the following octane ratings:

VK-107, in the YAK-9.....	100 octane
VK-107, in the YAK-9.....	95 octane
AM-42, in the IL-10.....	95 octane
ASH-21, in the YAK-11.....	87 octane
ASH-40, in the IL-2 & DC-3.....	87 octane
ARGUS, in the ARADO-96.....	87 octane
Walther Minor, in the ZLIN.....	87 octane
Hirth, in the Bucker Jungman.....	87 octane
M-11K, in the YAK-18.....	72 octane
M-11D, in the UT-2.....	72 octane

6. All aircraft in the Hungarian Air Force used Soviet types of oil. MS-type was used in summer, MK-type for spring and autumn, and MZS for winter. KV Soviet-type grease was used in all aircraft.
7. The hydraulic fluid used in the aircraft was 70% glycerine and 30% alcohol. It had sludge forming tendencies and was changed every week. This fluid also was used in the landing gears of the ARADO-96, but only in the landing gear shock absorbers of the YAK-9, YAK-11, YAK-18, IL-10 and the IL-2. The same type of fluid was used in the anti-icer systems. The engine coolant used in the IL-10 and the YAK-9 was composed of 63 liters of water to three grams of Ethyl Englykol or Krompik ( $K_2CO_3O_7$ ). When Ethyl Englykol or Krompik was not available, potassium permanganate was used.

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